From 0 to Xamarin: Adventures in a Cross-Platform world

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Grazie a

talentia Software

Partner

Microsoft

Communities

dns dotnetside · aspitalia.com · UGIdotNET · DotNet CAMPANIA

Chi sono

- Software Architect presso CompuGroup Medical Italia per lo sviluppo di soluzioni cloud e mobile

- Microsoft MVP dal 2010 nella categoria Integration, Microsoft Azure e Visual Studio Technologies

- Presidente di DotNetSide, community pugliese sul .NET Framework di Microsoft
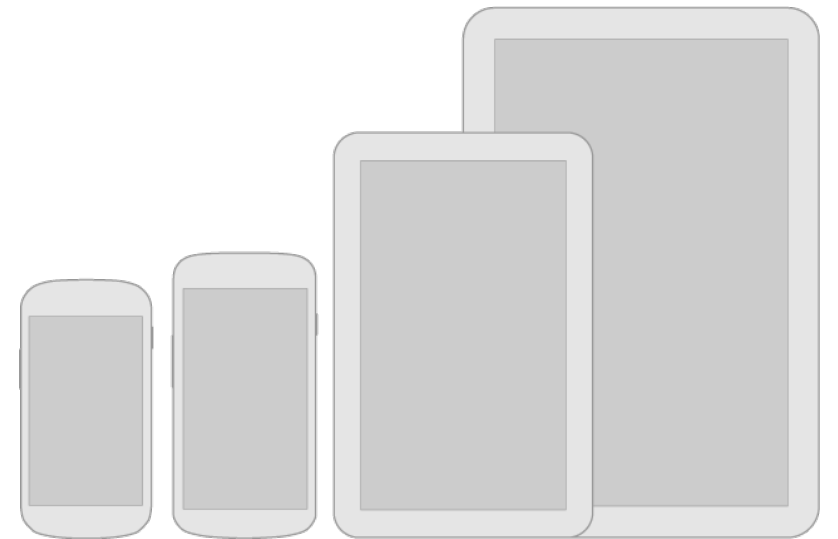
Agenda

- Perché Cross-Platform?
- La piattaforma Xamarin
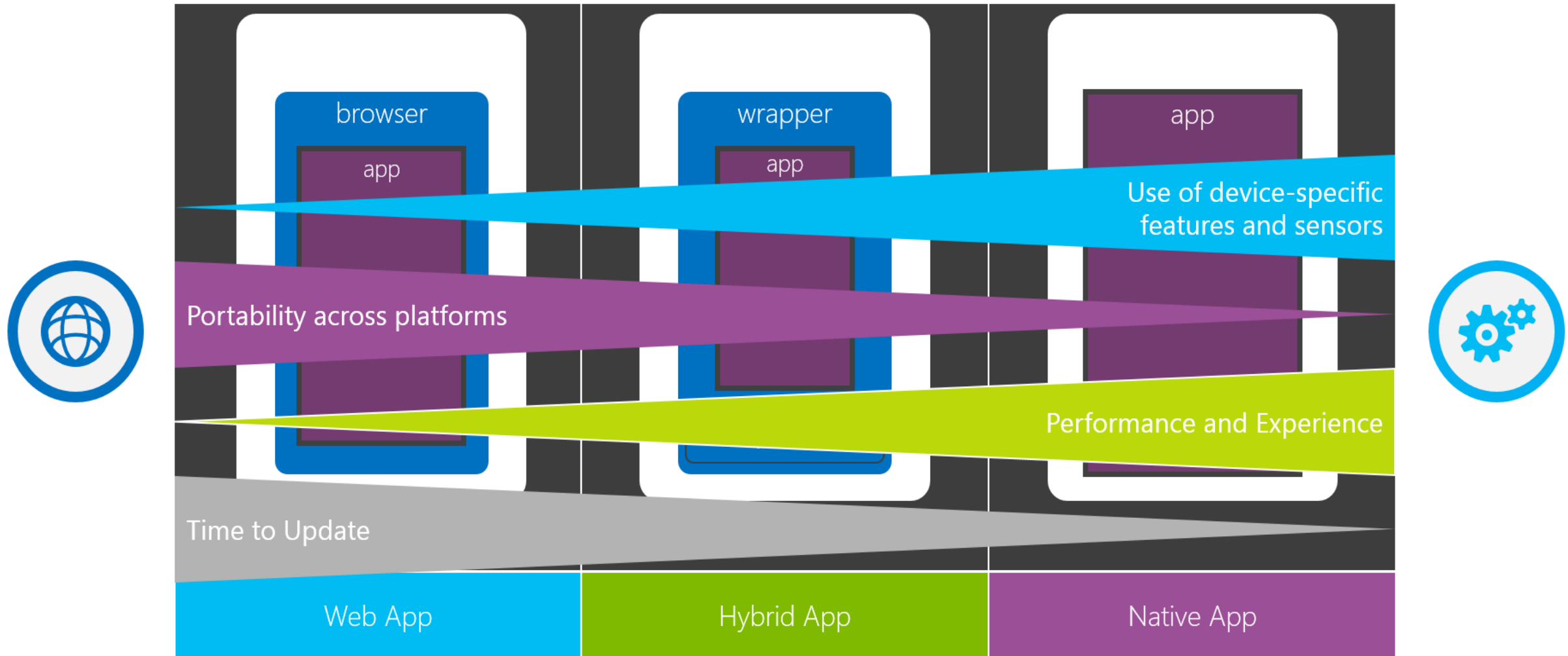- Sviluppare per iOS e Android
- Xamarin.Forms

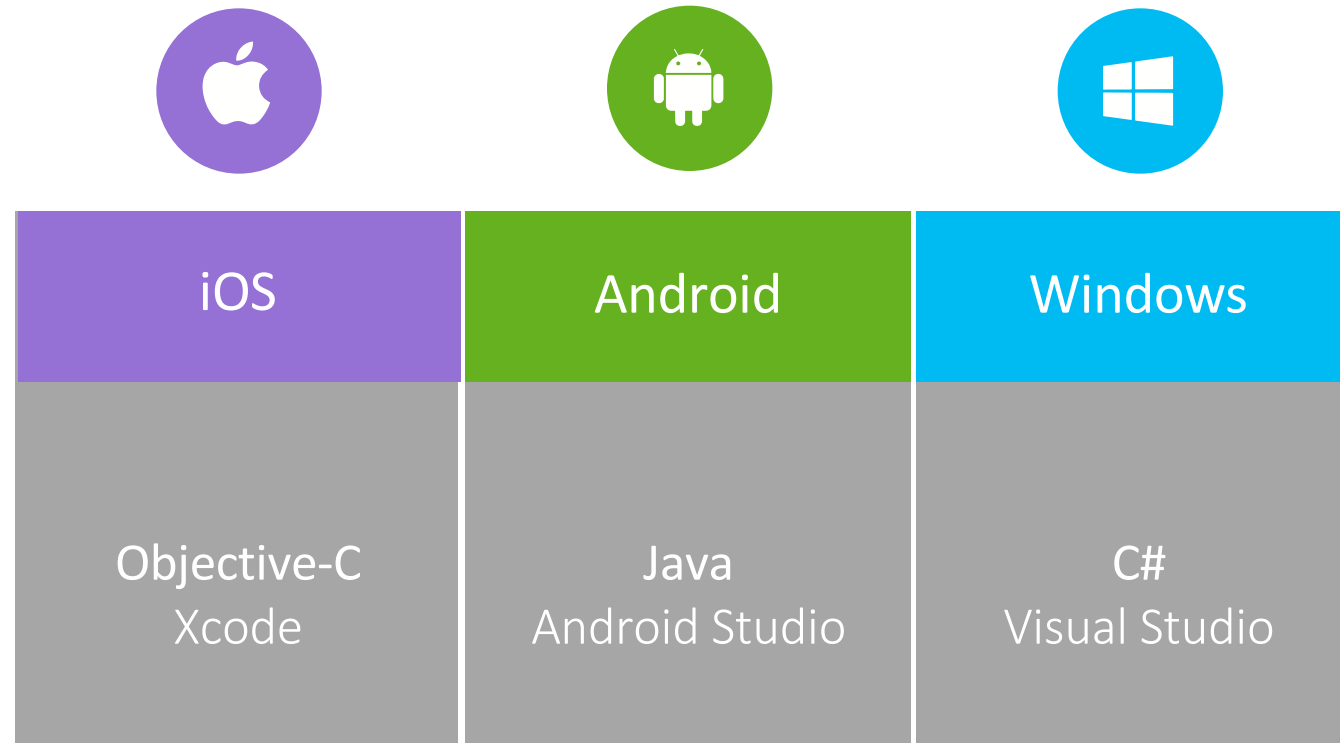# Why Cross-Platform?

Lo sviluppo cross-platform è complicato

- Diversi stili di presentazione, diverse UI
- Diversi hardware, diversi input, diversi schermi
- Diversi OS e diverse versioni
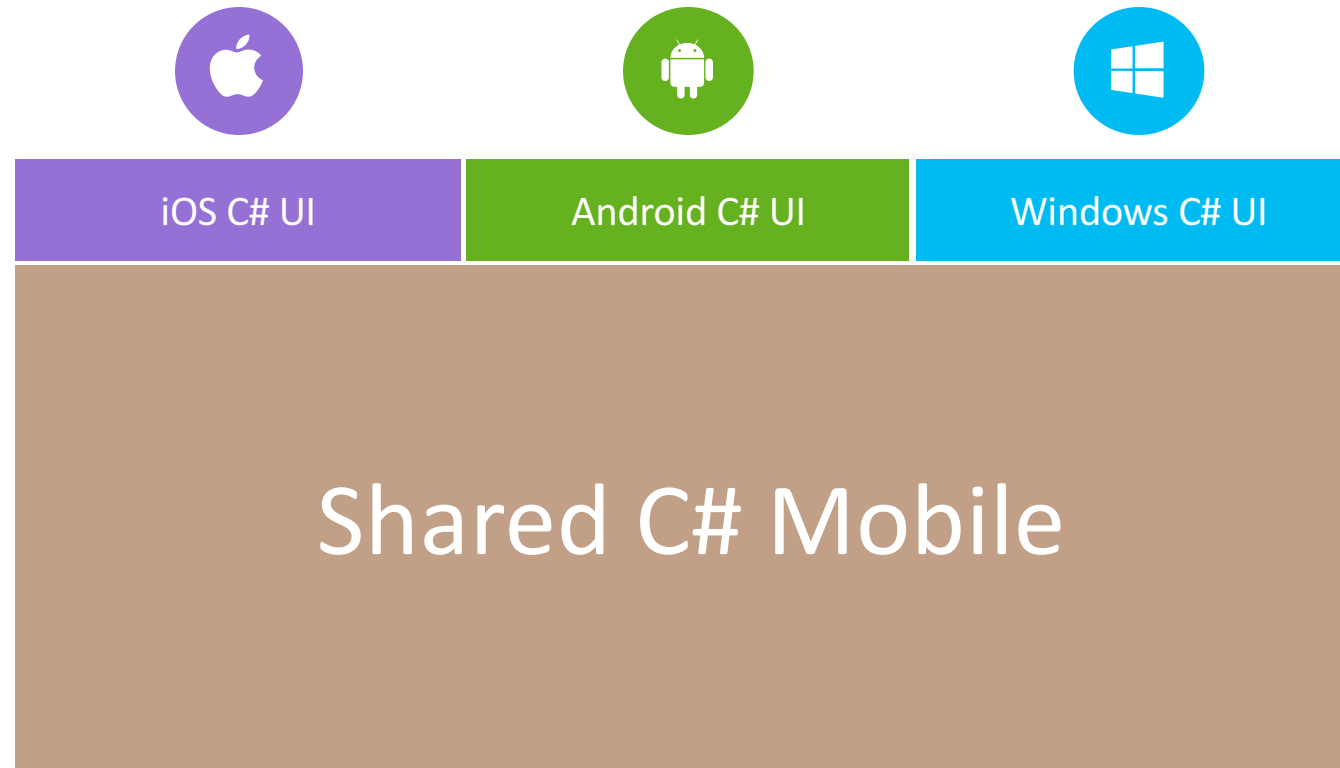
Scelta della tecnologia client

Silo approach

iOS	Android	Windows
Objective-C Xcode	Java Android Studio	C# Visual Studio

No shared code • Many languages & development enviroments • Multiple teams

The Xamarin Way

aka C# Everywhere

Xamarin's Unique Approach

iOS C# UI	Android C# UI	Windows C# UI

Shared C# Mobile

Shared C# codebase • 100% native API access • High perfomance

Soluzione completa per lo sviluppo mobile
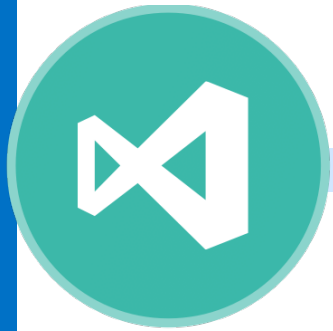
Sviluppo   **Test**   **Build**   **Distribuzione**   **Monitoraggio**

Xamarin First Touch

DEMO

Sharing! Sharing! Sharing!

iOS C# UI	Android C# UI	Windows C# UI	Azure	Linux/Mono CoreCLR
Shared C# Mobile			C# Server	
Shared C# Client/Server				
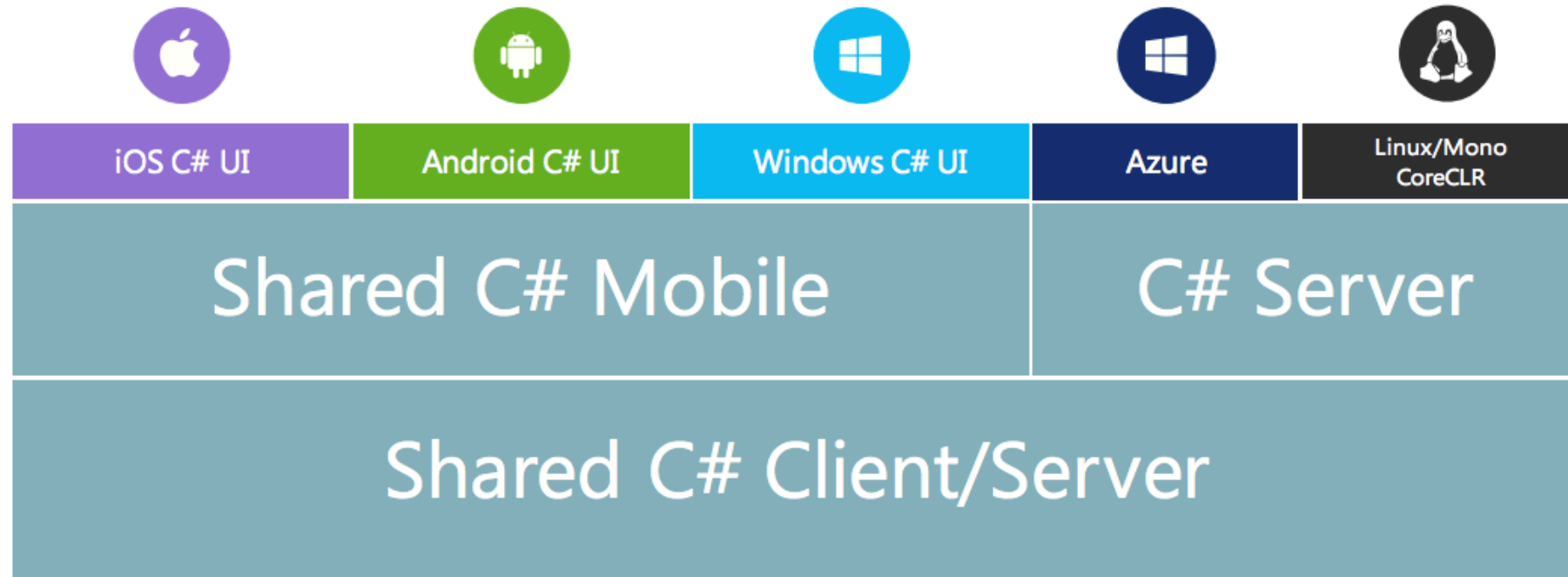
Shared C# codebase • 100% native API access • High performance

Sharing! Sharing! Sharing!

iOS C# UI	Android C# UI	Windows C# UI	Azure	Linux/Mono CoreCLR
Shared C# Mobile			**C# Server**	
Shared C# Client/Server				

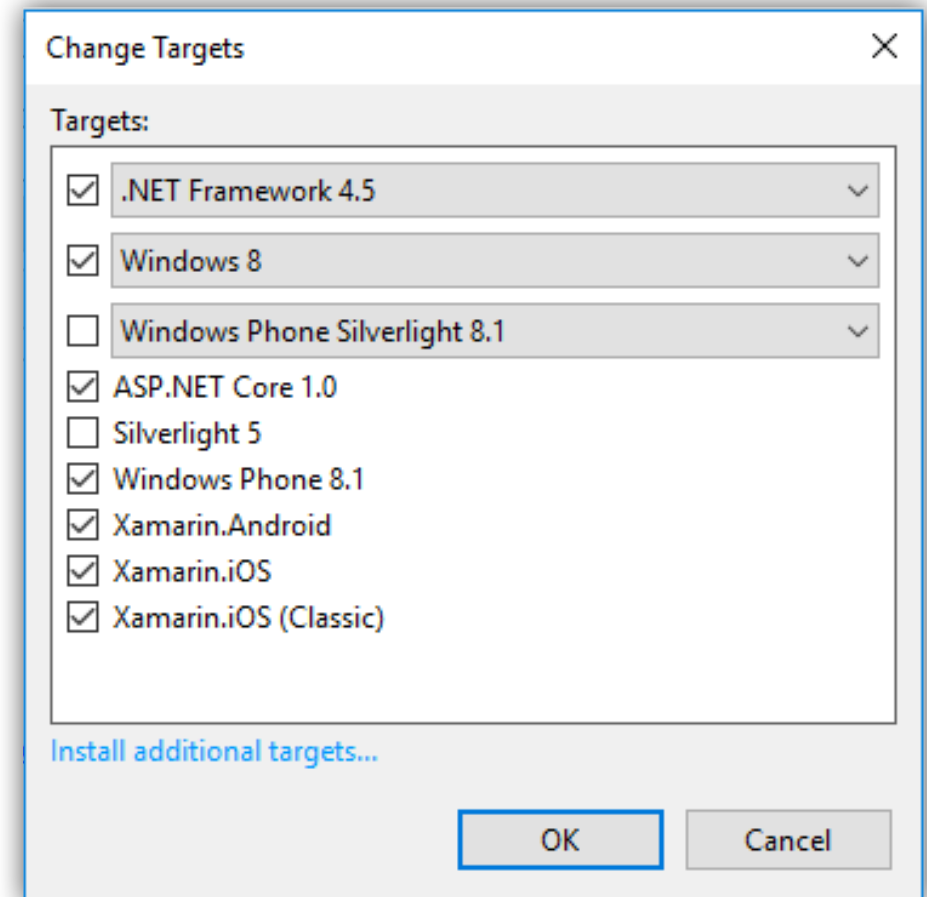Shared C# codebase • 100% native API access • High performance
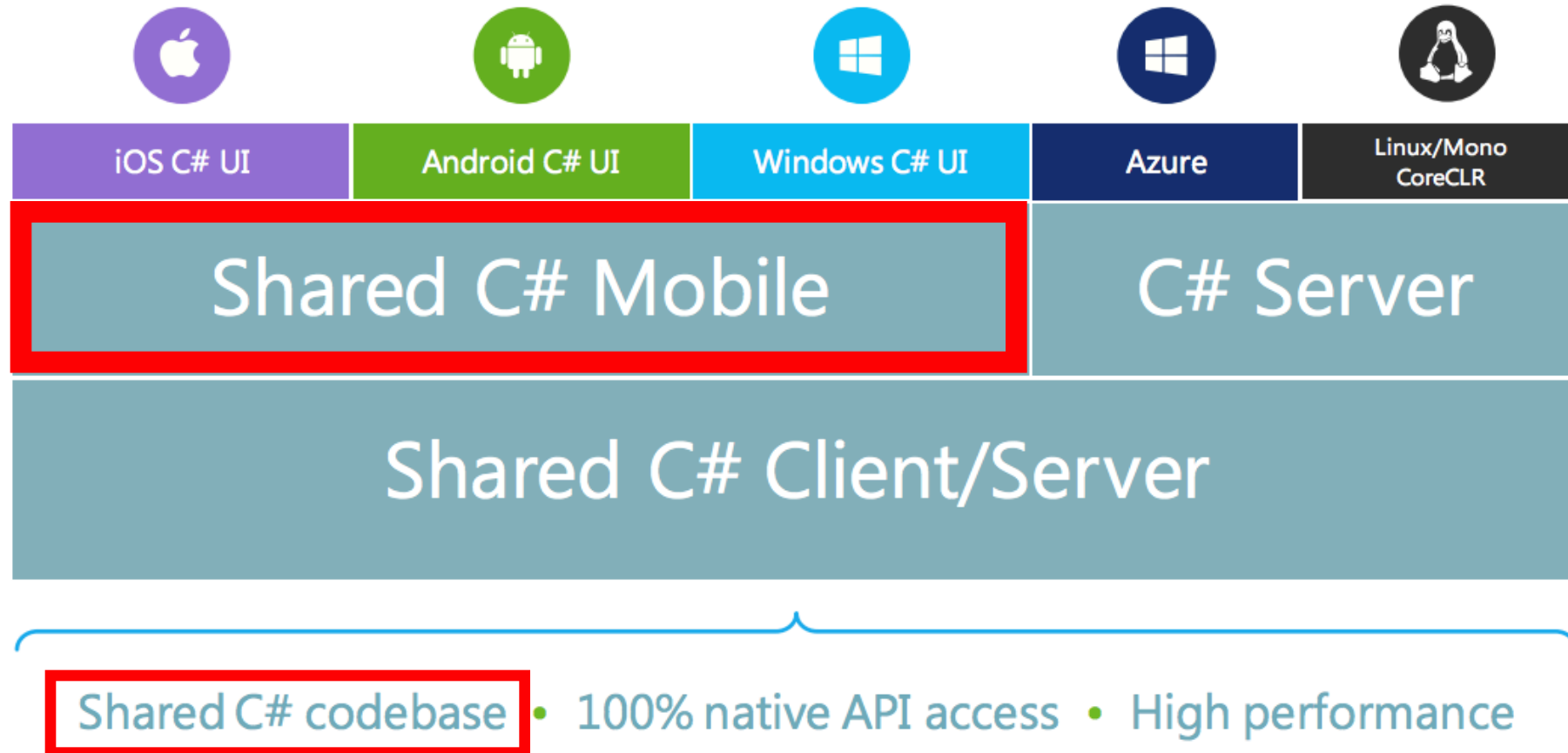
Non son tutte rose e fiori…

- Ogni piattaforma ha le sue peculiarità

- 100% cross-platform non è possibile

- Devo gestire le specificità dell'OS
  - Ad esempio: task sulla UI

- Interazione con il device

Condividere il codice

- Shared Project
  - Costanti di compilazione condizionale
  - Partial classes
- PCL (Portable Class Library)
  - 1 assembly per più piattaforme
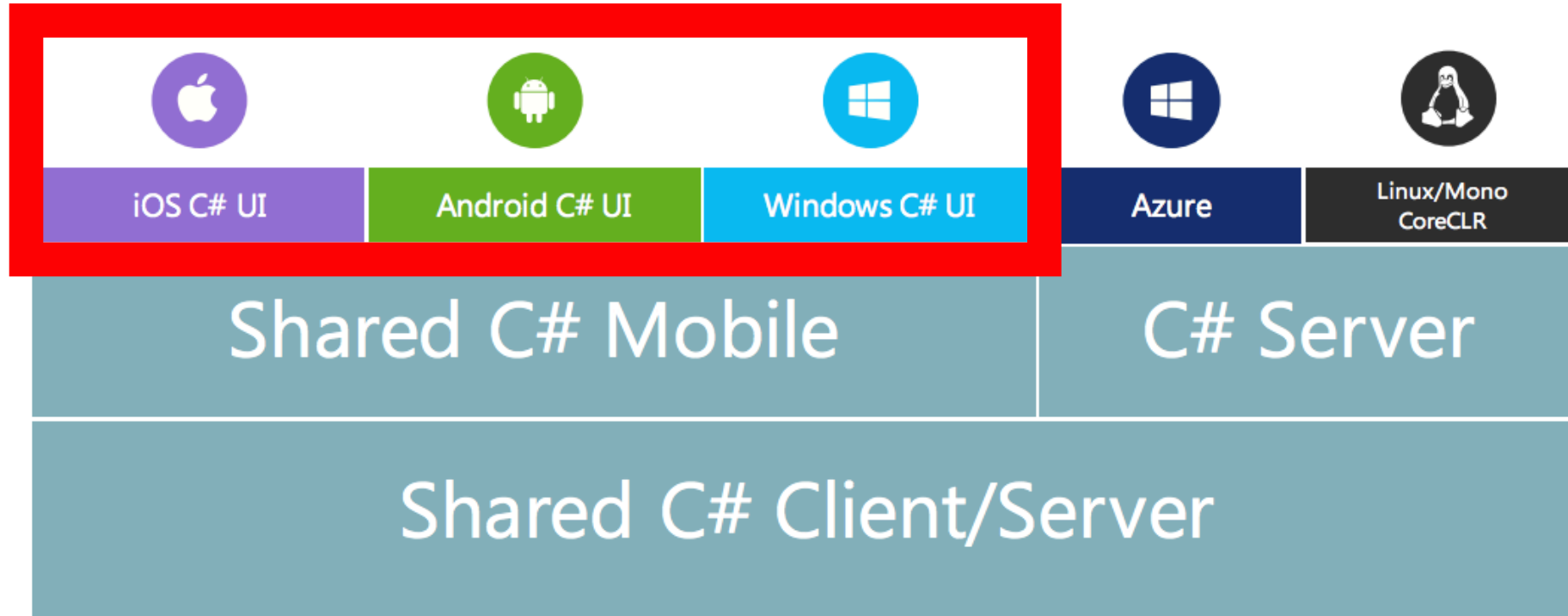 - Supporto completo in Visual Studio 2015 e in Xamarin Studio
  - codebase centralizzata
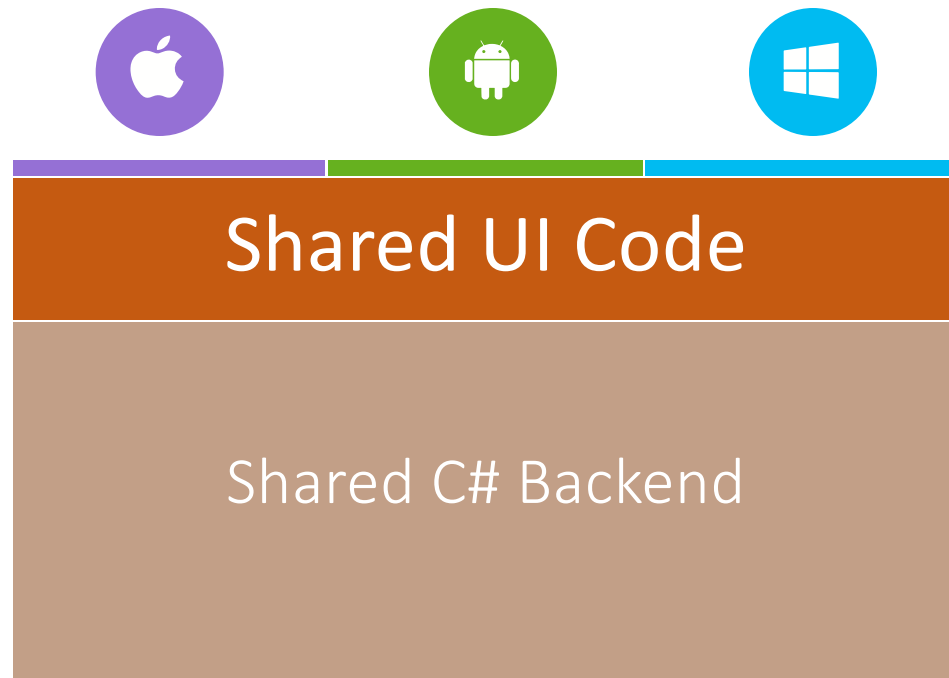
Code sharing technique

DEMO

Cross-Platform: e la UI?

iOS C# UI	Android C# UI	Windows C# UI	Azure	Linux/Mono CoreCLR

Shared C# Mobile	C# Server

Shared C# Client/Server

Shared C# codebase · 100% native API access · High performance

Write Once, Publish Everywhere

What's included

Shared UI Code

Shared C# Backend

✓ 40+ Pages, layouts, and controls
(code behind o XAML)

✓ Two-way data binding

✓ Navigations

✓ Animation API

✓ Dependency Service

✓ Messaging Center

Native UI from shared code
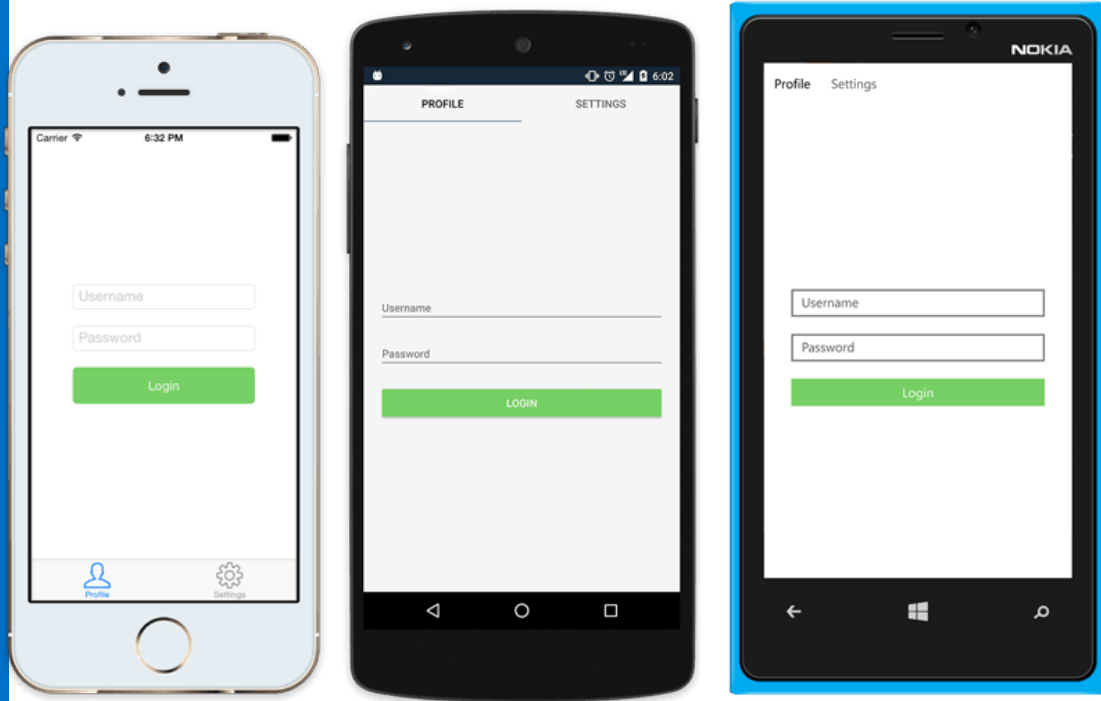

```xml
<?xml version="1.0" encoding="UTF-8"?>
<TabbedPage xmlns="http://xamarin.com/schemas/2014/forms"
            xmlns:x="http://schemas.microsoft.com/winfx/2009/xaml"
            x:Class="MyApp.MainPage">
<TabbedPage.Children>
<ContentPage Title="Profile" Icon="Profile.png">
    <StackLayout Spacing="20" Padding="20"
                 VerticalOptions="Center">
        <Entry Placeholder="Username"
               Text="{Binding Username}"/>
        <Entry Placeholder="Password"
               Text="{Binding Password}"
               IsPassword="true"/>
        <Button Text="Login" TextColor="White"
                BackgroundColor="#77D065"
                Command="{Binding LoginCommand}"/>
    </StackLayout>
</ContentPage>
<ContentPage Title="Settings" Icon="Settings.png">
    <!-- Settings -->
</ContentPage>
</TabbedPage.Children>
</TabbedPage>
```
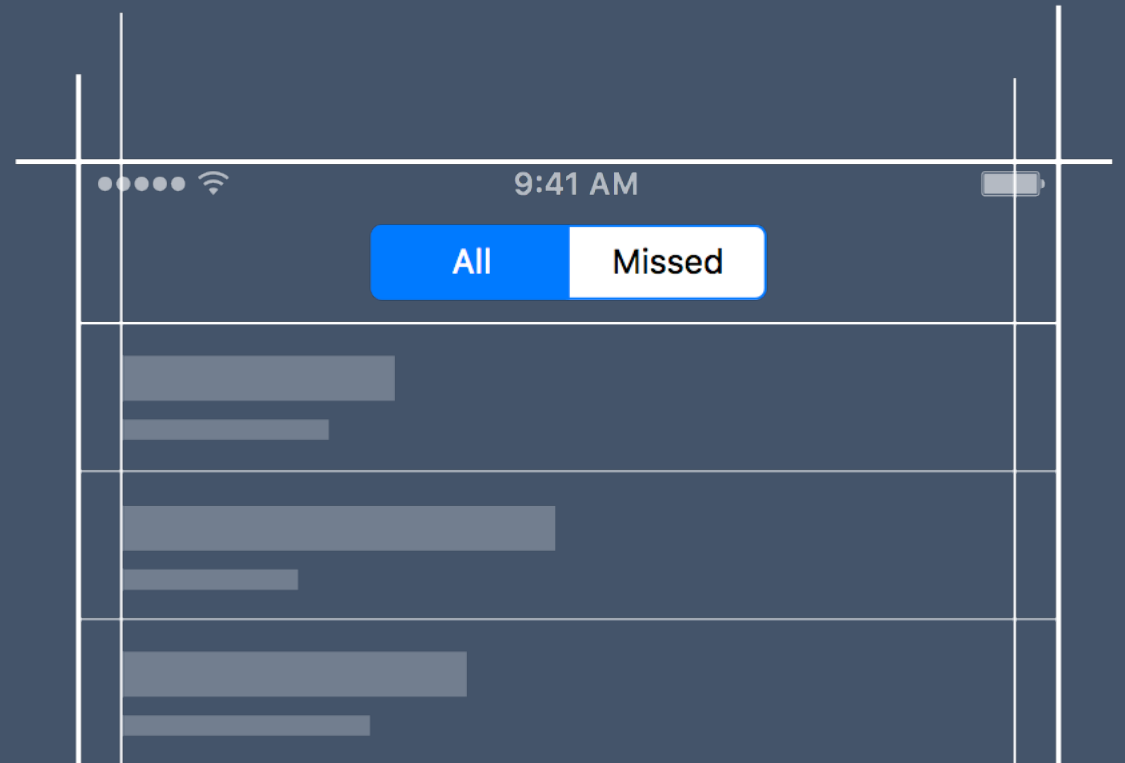
```xml
<ContentPage.Padding>
  <OnPlatform x:TypeArguments="Thickness">
    <OnPlatform.iOS>
      0, 20, 0, 0
    </OnPlatform.iOS>
    <OnPlatform.Android>
      0, 0, 0, 0
    </OnPlatform.Android>
    <OnPlatform.WinPhone>
      0, 0, 0, 0
    </OnPlatform.WinPhone>
  </OnPlatform>
</ContentPage.Padding>
```
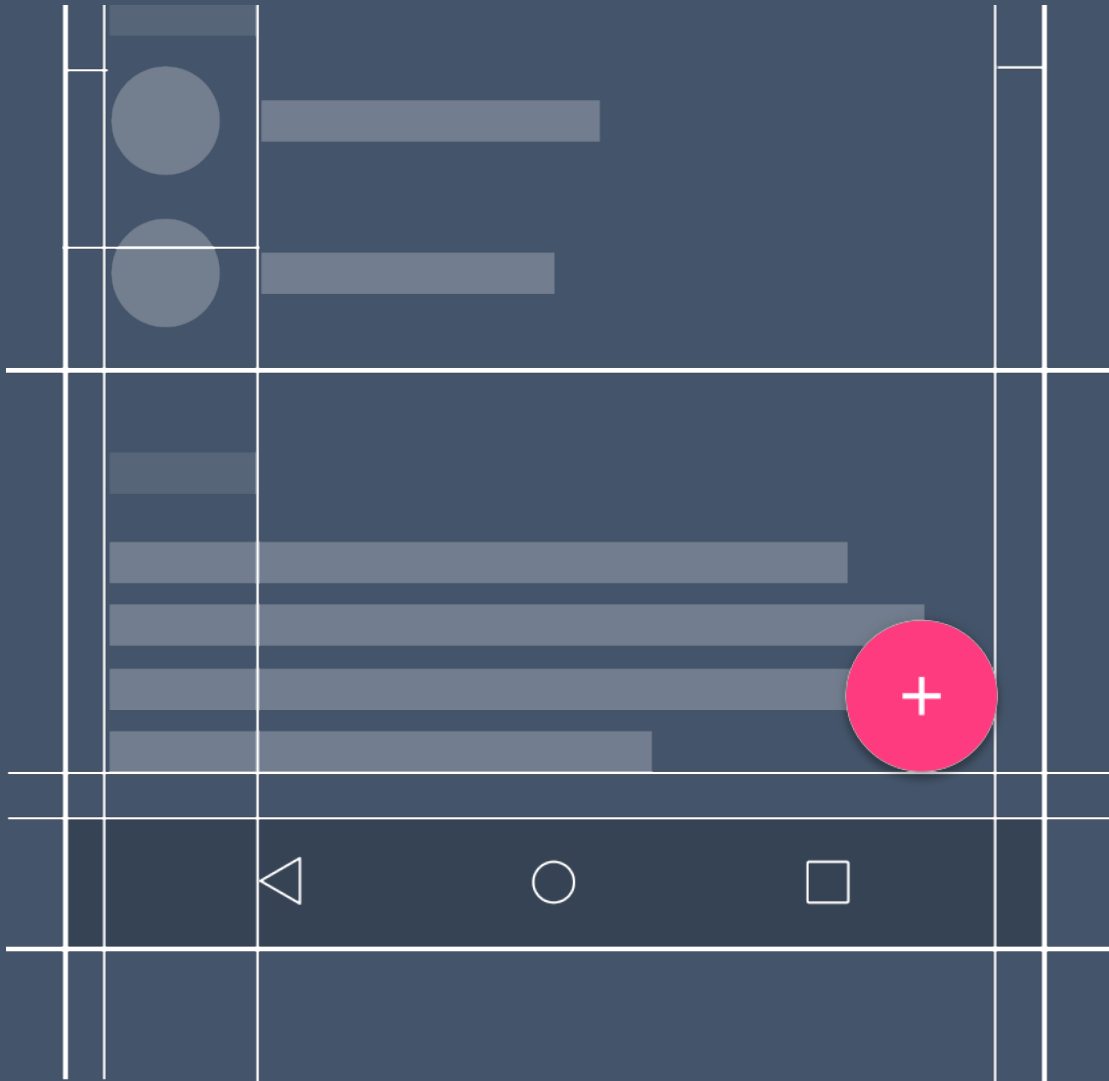
Personalizzazione della piattaforma

XAML Previewer

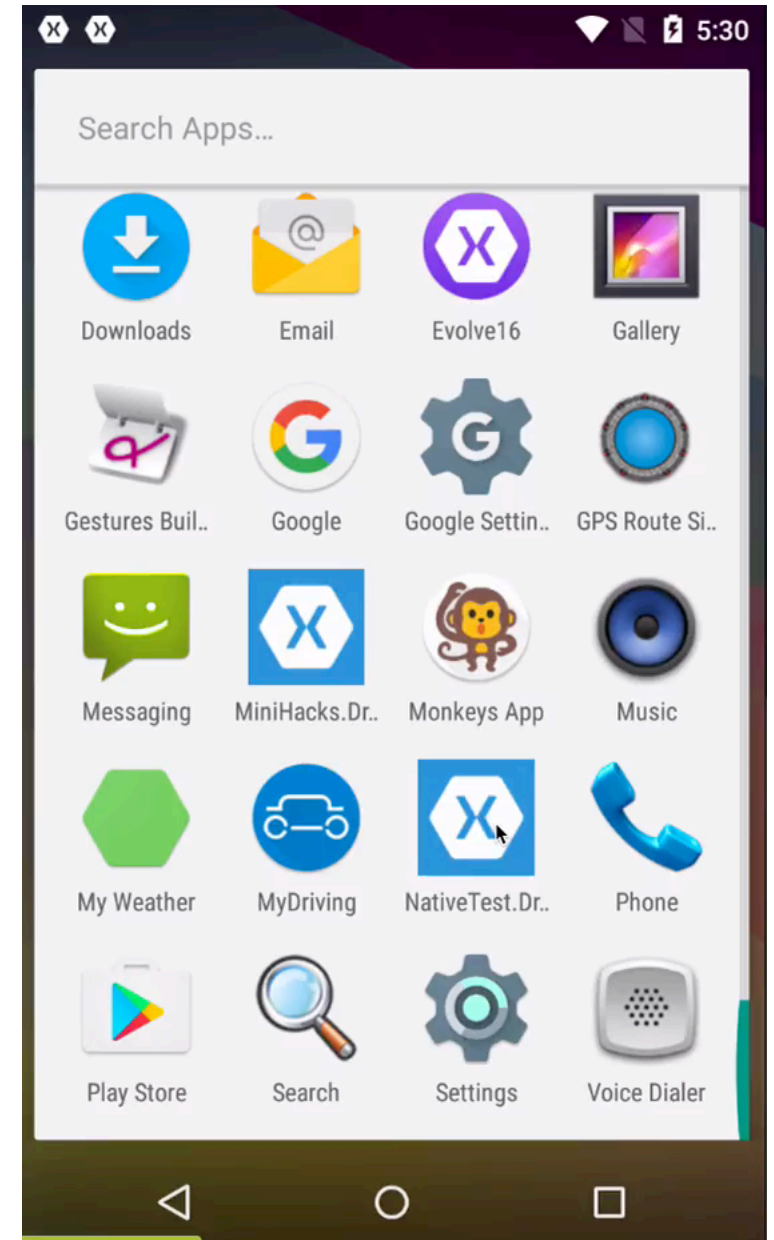# Native Embedding

9:41 AM

All   Missed

Native Embedding

```
var stack = new StackLayout
{
    Padding = 50,
    HorizontalOptions = LayoutOptions.Center,
};

#if __ANDROID__
var fab = new CheckableFab(Forms.Context);
fab.SetImageResource(Droid.Resource.Drawable.ic_fancy_fab_icon);
fab.Click += async (sender, e) =>
{
    await MainPage.DisplayAlert("Native FAB Clicked",
                               "Whoa!!!!!!", "OK");
};
stack.Children.Add(fab);
#endif
```

Xamarin.Forms

DEMO

Riferimenti

- Contattatemi
  - @fabiocozzolino
  - www.fabiocozzolino.eu
- Xamarin
  - @xamarinhq
  - http://www.xamarin.com
- Sviluppatori Xamarin Italia
  - https://www.facebook.com/groups/sviluppatorixamarinitalia/

Domande?